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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GANG WU and TCHAVDAR DANGALTCHEV

Appeal 2016-005197¹
Application 14/549,329²
Technology Center 3600

Before JOSEPH A. FISCHETTI, JAMES A. WORTH, and
TARA L. HUTCHINGS, *Administrative Patent Judges*.

HUTCHINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Our Decision references Appellants’ Appeal Brief (“Br.,” filed August 19, 2015) and the Examiner’s Answer (“Ans.,” mailed February 9, 2016) and Final Office Action (“Final Act.,” mailed May 21, 2015).

² Appellants identify Microsoft Technology Licensing, LLC, a subsidiary of Microsoft Corporation, as the real party in interest. Br. 3.

CLAIMED INVENTION

Claims 1, 5, 9, and 13 are the independent claims on appeal. Claim 1, reproduced below with added bracketed notations, is illustrative of the claimed subject matter:

1. A computer-implemented method comprising:

[(a)] receiving, by a computer, a user query from a web browser of a user device;

[(b)] determining, by the computer, a visible area of a user interface of the web browser based on one or more of a height of the web browser user interface, a width of the web browser user interface, a point of origin for a corner of the web browser user interface, a status of the web browser, or an indication as to a visibility of the web browser user interface;

[(c)] determining, by the computer, a preliminary number of media content slots based on the determined visible area of the web browser user interface;

[(d)] determining, by the computer, an actual number of media content slots available based on the preliminary number of media content slots and at least one of: a user preference, a history of user interaction with advertisements, or a popularity of the user query; and

[(e)] transmitting, by the computer, to the user device a number of media content items for display on the web browser based on the determined actual number of media content slots available.

REJECTIONS³

Claims 1–20 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

³ The provisional double patenting rejection is moot in view of the abandonment of U.S. Application No. 13/291,149.

Claims 1, 2, 5, 6, 9, 10, 13, and 14 are rejected under 35 U.S.C. § 103(a) as unpatentable over Plut (US 2010/0306022 A1, pub. Dec. 2, 2010) (“Plut”) and Horowitz (US 2009/0106096 A1, pub. Apr. 23, 2009).

Claims 3, 4, 7, 8, 11, 12, 15, and 16 are rejected under 35 U.S.C. § 103(a) as unpatentable over Plut, Horowitz, and Shahshahani (US 2010/0030647 A1, pub. Feb. 4, 2010).

Claims 17–20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Plut, Horowitz, RealVu®Platform: *Measurement Process and Description Methodology*, Revision #4 (Sept. 2009) (hereinafter “RealVu”), and Dykes (US 2008/0306815 A1, pub. Dec. 11, 2008).

ANALYSIS

Non-Statutory Subject Matter

Appellants argue claims 1–20 as a group for this ground of rejection. Br. 14–36. We select independent claim 1 as representative. The remaining claims of the group stand or fall with independent claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

Under 35 U.S.C. § 101, an invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *See, e.g., Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012), “for distinguishing patents that claim

laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355. The first step in that analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If the claims are not directed to a patent-ineligible concept, e.g., an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 79, 78).

The Court acknowledged in *Mayo*, that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo*, 566 U.S. at 71. Therefore, the Federal Circuit has instructed that claims are to be considered in their entirety to determine “whether their character as a whole is directed to excluded subject matter.” *McRO, Inc. v. Bandai Namco Games Am., Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)).

In rejecting the pending claims under § 101, the Examiner analyzed the claims using the *Mayo/Alice* two-step framework, consistent with the guidance set forth in the USPTO’s “2014 Interim Guidance on Patent Subject Matter Eligibility,” in effect at the time the Final Office Action was mailed. *See* Final Act. 8–9. Specifically, the Examiner notified Appellants that the claims are broadly directed to “determining a number of media content slots available.” *Id.* at 8. The Examiner determined that the concept is a fundamental economic practice, i.e., an abstract idea, because

determining media content slots available, such as determining the number of ads or columns that can be inserted on a page of a newspaper or magazine is ubiquitous throughout media/advertising and pre-dates computing technology. *Id.* Turning to step two, the Examiner determined that the claims do not include any claim element or a combination of elements that amount to significantly more than the abstract idea of determining a number of media content slots available. *Id.* at 8–9.

Appellants argue that the Examiner fails to analyze the entire claim and instead makes a conclusory statement that the claims are directed to the abstract idea of determining a number of media content slots. Br. 15. Appellants assert that the Examiner “does not even cite actual claim language in its conclusion that the claims are directed to an abstract idea.” *Id.* Yet, there is no requirement for the Examiner’s formulation of an abstract idea to copy the claim language. Instead, the Federal Circuit has explained that “the ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (citing *Internet Patents Corp.*, 790 F.3d at 1346).

The Examiner’s determination here that the claims are directed to “determining a number of media content slots available” is fully consistent with the Specification, including the claim language (*see, e.g.*, claim 1 (“A computer-implemented method” recites a sequence of steps that results in transmitting to the user device “a number of media content items for display . . . based on the determined actual number of media content slots available”); Spec. ¶¶ 3 (describing a problem in prior art in which

“advertisements are not seen by a user because . . . the user’s web browser is resized to allow another program window to be shown on his or her display”), 15 (“various embodiments . . . enable a number of advertisement slots to be determined and presented”). Moreover, the Examiner’s characterization of the claimed subject matter is consistent with Appellants’ description thereof. *See* App. Br. 15 (charging that “[t]he subject matter of the claims pertains to determining a number of media content slots to display in a web browser based[,] in part[,] on the visibility of a web browser user interface”). To the extent that Appellants would adopt a narrower characterization, we note that an abstract idea can be expressed at various levels of abstraction. *See Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). That the Examiner articulates the abstract idea at a different level of abstraction than Appellants is an insufficient basis on this record for finding that the claims are not directed to an abstract idea.

Appellants argue that the subject matter of the claims “does not pertain to a long-prevalent and fundamental practice in comparison to the abstract ideas of risk-hedging and intermediated settlement relied upon by the *Alice* Court, which have been in widespread use for many centuries throughout the world.” Br. 15–16. Appellants point to limitations (b) and (c), as recited in claim 1, as exemplary limitations demonstrating that the subject matter does not pertain to a long-prevalent and fundamental practice. *See id.* at 16. Yet, Appellants cannot reasonably deny that determining a number of media content slots based on a visible area, such as a number of spaces for advertisements on a newspaper page, is a long-standing economic practice and, therefore, an abstract idea. That the claims limit the use of the abstract idea to a particular technological environment, i.e., a web browser

user interface, does not make the claims any less abstract. *See Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010) (the prohibition against patenting an ineligible concept, such as an abstract idea, cannot be circumvented by limiting the use of the abstract idea to a particular technological environment). For at least this reason, we are not persuaded that the Examiner erred in determining that the claims are directed to an abstract idea.

In addition, receiving data, processing the data, and transmitting information in response, as recited in claim 1, is not meaningfully distinct from claims involving the collection, organization, manipulation or display of data that have been held by the Federal Circuit to be directed to abstract ideas. *See, e.g., Electric Power Grp., LLC v. Alstom*, 830 F.3d 1350, 1353 (claims focused on “collecting information, analyzing it, and displaying certain results of the collection and analysis” are directed to an abstract idea); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (“at their core, [the claims are] directed to the abstract idea of collecting, displaying, and manipulating data”).

Appellants argue that the claimed subject matter parallels patent-eligible claim 1 of Example 23 of the USPTO’s “July 2015 Update Appendix 1: Examples.”⁴ Br. 16–18. In particular, Appellants assert that claim 1, like claim 1 of Example 23, does not recite a concept that is similar to any abstract idea previously identified by the courts. *Id.* at 17. However, we are not persuaded that claim 1 of Example 23 is analogous to claim 1 in

⁴ July 2015 Update Appendix 1: Examples, *available at* <https://www.uspto.gov/sites/default/files/documents/ieg-july-2015-app1.pdf> (hereinafter “July 2015 Examples”).

the instant application. Instead, we determine that claim 1 is more akin to patent-ineligible claim 3 of Example 23.

For example, claim 1 of Example 23 “address[es] a problem with overlapping windows within a graphical user interface.” July 2015 Examples 9. To solve this problem, Example 23’s claim 1 recites, in part, “constantly monitoring the boundaries of the first window and the second window [in a graphical user interface] to detect an overlap condition where the second window overlaps the first window such that the textual information in the first window is obscured from a user’s view,” “automatically relocating the textual information . . . to an unobscured portion of the first window in a second format during an overlap condition so that the textual information is viewable,” and “automatically returning the relocated textual information . . . to the first format within the first window when the overlap condition no longer exists.” *Id.* at 8. In this way, Example 23’s claim 1 is not directed to a judicial exception, but rather to addressing a problem with overlapping windows within a graphical user interface. *Id.* at 9. The claimed solution there is “necessarily rooted in computer technology to overcome a problem specifically arising in graphical user interfaces.” *Id.*

Example 23’s claim 3, on the other hand, recites a computer-implemented method of resizing textual information within a window displayed in a graphical user interface comprising: generating first data for describing the area of a first graphical element; generating second data for describing the area of a second graphical element containing textual information; and calculating, by the computer, a scaling factor. *Id.* at 8. Claim 3 is “directed to a series of steps for calculating a scaling factor,” i.e., a mathematical algorithm, which is an abstract idea. *Id.* at 10. A computer

in a graphical user interface environment implements the mathematical algorithm *Id.* at 8, 11. But limiting the use of the abstract idea to a particular technological environment, is not significantly more. *Id.* (citing *Parker v. Flook*, 437 U.S. 584 (1978)). The USPTO explains that claim 3 of Example 23 “may improve computer technology” but it provides no meaningful limitations to realize such improvement and confer patent-eligibility. *Id.*

Similar to the situation in claim 3 of Example 23, Appellants’ claim 1 recites a sequence of steps that results in a calculation (i.e., determining an actual number of media content slots). The result of the calculation is used to transmit a number of media content items to the user device. Like claim 3, the invention is implemented in a graphical user interface environment by a computer, but does not otherwise recite meaningful limitations to amount to significantly more than the abstract idea. Appellants contend that transmitting the media content items based on the actual number of media content slots, as recited in claim 1, and similarly recited in claims 5, 9, and 13, “improves the ability of the user device to display information and interact with the user.” Br. 22 (pointing out that the actual number of media slots available is determined based on a preliminary number of media content slots and “at least one of: a user preference, a history of user interaction with advertisements, or a popularity of the user query”). But unlike the situation in claim 1 of Example 23, the improvement identified by Appellants is not a technological improvement to a graphical user interface and does not address a problem particular to graphical user interfaces that is rooted in computer technology. Instead, the identified improvement relates to a process that is itself an abstract idea. *See, e.g., Intellectual Ventures I,*

850 F.3d at 1340 (identifying the abstract idea of collecting, displaying, and manipulating data).

Turning to the second step of the *Mayo/Alice* framework, Appellants assert that the claims amount to significantly more than the abstract idea, because the claims would not pre-empt others from using the abstract idea. Br. 22–23. Appellants’ argument is not persuasive. There is no dispute that the Supreme Court has described “the concern that drives [the exclusion of abstract ideas from patent eligible subject matter] as one of pre-emption.” *Alice*, 134 S. Ct. at 2354. But characterizing preemption as a driving concern for patent eligibility is not the same as characterizing preemption as the sole test for patent eligibility. “The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability” and “[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice*, 134 S. Ct. at 2354). “[P]reemption may signal patent ineligible subject matter, [but] the absence of complete preemption does not demonstrate patent eligibility.” *Id.*

Appellants argue that the claims are analogous to the claims in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), because they solve a technological problem that specifically arises in the realm of computers. Br. 23–25. Specifically, Appellants contend that “Internet publication poses problems specifically arising in the realm of computer networks and enabling control or use of a person’s [I]nternet metadata and tailoring their interactions with the [I]nternet is a solution necessarily rooted in computer technology.” *Id.* at 24. Yet, leveraging a person’s metadata to tailor Internet interactions serves a conventional business purpose:

improved targeted content. Such a problem is not a problem that specifically arises in the realm of computers. Nor is it a solution to a challenge particular to computer networks, or a solution necessarily rooted in computer technology. Instead, it describes the use of technology to serve a conventional business purpose. Here, Appellants do not persuade us that the claims effect any change comparable to the change to the routine, conventional functioning of Internet hyperlink protocol that the court recognized in *DDR Holdings*. See *DDR Holdings*, 773 F.3d at 1257.

In view of the foregoing, we sustain the Examiner’s rejection under 35 U.S.C. § 101 of claim 1 and claims 2–20, which fall with claim 1.

Obviousness

Independent Claims 1, 5, 9, and 13, and Dependent Claims 2, 6, 10, and 14

We are persuaded by Appellants’ argument that the Examiner erred in rejecting independent claims 1, 5, 9, and 13 under 35 U.S.C.

§ 103(a) because Plut does not disclose or suggest “determining, by the computer, a preliminary number of media content slots based on the determined visible area of the web browser user interface,” as recited in claim 1, and similarly recited in claims 5, 9, and 13. Br. 32. The Examiner relies on Plut for the argued limitation. Final. Act. 11 (citing Plut ¶¶ 42–43, Figs. 2–3); see also Ans. 11–12(citing Plut ¶¶ 42–43, Figs. 2–3).

With reference to Figure 3, Plut describes a methodology for rendering advertisement content. Plut ¶ 41. The process involves receiving search query information (step 302), and analyzing the received query to establish criteria (e.g., a topic or content) related to the user or the user’s current activity (step 304). *Id.* ¶ 42. The established criteria is used to retrieve relevant advertisements (step 306). *Id.* At step 308, a determination

is made based on applicable rules whether additional advertisements are to be retrieved. *Id.* ¶ 43.

The Examiner takes the position that determining whether additional advertisements are to be made “in accordance with applicable rules,” as described by Plut, teaches determining a preliminary number of media content slots based on the determined visible area of the web browser user interface. Ans. 12 (citing Plut ¶ 43). Yet, that Plut teaches leveraging “applicable rules” to determine whether additional advertisements are to be retrieved fails to teach or suggest the claimed step of determining. We do not find any indication in the cited portion that Plut teaches determining a preliminary number of media content slots, much less that the determination is based on the determined visible area of the web browser user interface.

In view of the foregoing, we do not sustain the Examiner’s rejection of independent claims 1, 5, 9, and 13, and dependent claims 2, 6, 10, and 14 under 35 U.S.C. § 103(a).

Dependent Claims 3, 4, 7, 8, 11, 12, and 15–20

Claims 3, 4, 7, 8, 11, 12, and 15–20 each depend from one of independent claims 1, 5, 9, and 13. The rejections of these dependent claims do not cure the deficiency in the Examiner’s rejection of independent claims 1, 5, 9, and 13. Therefore, we do not sustain the Examiner’s rejections of claims 3, 4, 7, 8, 11, 12, and 15–20 under 35 U.S.C. § 103(a) for the same reasons set forth above with respect to the independent claims.

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DECISION

The Examiner's rejection of claims 1–20 under 35 U.S.C. § 101 is affirmed.

The Examiner's rejections of claims 1–20 under 35 U.S.C. § 103(a) are reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED